

Appl. No. : 10/070,048
Filed : February 22, 2002

REMARKS

The specification has been amended to correct clerical errors. Claims 1-3 have been amended to correct clerical errors. Claims 5-11 have been added. Support for these claims can be found throughout the specification. The specification has been amended to correct informalities. No new matter has been added. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Specification

The disclosure has been objected to because of the informalities set forth in the Office Action. The specification has been amended to correct the informalities, thereby obviating this objection.

Rejection Under 35 U.S.C. § 112

Claims 1-4 have been rejected under 35 U.S.C. § 112, second paragraph, with regard to the terms “the starting material” and “the product” in Claim 1, and “right- and left-circularly polarized light” in Claims 2 and 3. These claims have been amended to correct these terms, thereby obviating this rejection.

Rejection Under 35 U.S.C. § 102 Based on Nishino et al.

Claims 1 and 4 have been rejected under 35 U.S.C. § 102(a) as being anticipated by Nishino et al. However, this reference does not serve as prior art because the reference discloses the inventors’ own work as declared in a Rule 132 declaration accompanying this amendment. Thus, Claims 1 and 4 could not be rejected under 35 U.S.C. § 102(a) as being anticipated by Nishino et al.

Rejection Under 35 U.S.C. § 102 Based on Salam et al.

Claim 1 has been rejected under 35 U.S.C. § 102(a) as being anticipated by Salam et al. The Examiner asserts that Salam et al. discloses “concentrating one of the enantiomers or diastereomers in the starting material and one of the enantiomers or diastereomers in the product that corresponding to the enantiomer or diastereomer not concentrated in the starting material

(pages 118-126, "3. Applications")." However, Salam et al.'s system is entirely different from the system recited in Claim 1 as explained below.

First, in Salam et al.'s system, the material is changed simply from the ground state (Lg, Rg) to the excited state (Le, Re). The Examiner appears to think that the excited state (Le, Re) is a product. However, the excited state is not a product which is a different chemical substance (e.g., isomerized substances). Further, the excited state cannot be concentrated as a product.

In contrast, in Claim 1, in the photochemically reversible reaction system, the product is obtained via the excited state, wherein the starting material and the product are present (e.g., see the diagrams on page 12).

Further, in Claim 1, in the photochemically reversible reaction system, the starting material and the product are each mixtures of enantiomers or diastereomers not photochemically or thermally converted into each other. Salam et al. is totally silent about this system structure.

Furthermore, in Claim 1, due to the above system structure, it is possible to concentrate not only one of the enantiomers or diastereomers in the starting material, but also one of the enantiomers or diastereomers in the product that corresponds to the enantiomer or diastereomer not concentrated in the starting material. Salam et al. is irrelevant to this aspect.

Thus, contrary to the Examiner's assertion, Salam et al. clearly could not anticipate Claim 1. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 103 Based on Nishino et al.

Claims 2 and 3 have been rejected under 35 U.S.C. § 103 as being unpatentable over Nishino et al. However, as explained above, Nishino et al. does not serve as prior art. This rejection is no longer applicable.

Rejection Under 35 U.S.C. § 103 Based on Salam et al.

Claims 2 and 3 have been rejected under 35 U.S.C. § 103 as being unpatentable over Salam et al. However, as explained above, Salam et al.'s system is very different from the system recited in the claims. Salam et al. is irrelevant to the production of a product via the excited state. Salam et al. does not teach controlling the concentration of the starting material and the product as a function of value g , \pm sign, or K . Salam et al. does not teach concentrating one of the enantiomers or diastereomers of the starting material and concentrating one of the enantiomers or

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diastereomers in the product which corresponds to the other not concentrated in the material. The teachings of Salam et al. are irrelevant to Claims 2 and 3. These claims could not be obvious over Salam et al. Applicant respectfully requests withdrawal of this rejection.

New Claims

Claims 5-11 have been added. These claims recite features corresponding to those discussed above. It is respectfully submitted that these claims are allowable.

CONCLUSION

In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

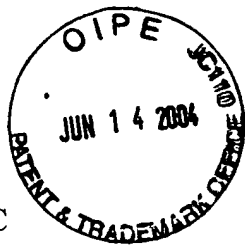
Dated: June 9, 2004

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Nishino, et al.
Appl. No.	:	10/070,048
Filed	:	February 22, 2002
For	:	METHOD FOR ABSOLUTE ASYMMETRIC SYNTHESIS
Examiner	:	E. Wong
Group Art Unit	:	1753

DECLARATION UNDER §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We, Hideo Nishino, Asao Nakamura and Yoshihisa Inoue, the inventors of the above-identified application (the INVENTORS), do declare and state as follows:

1 An article, Nishino et al. Absolute Asymmetric Synthesis of Norbornadiene and Quadricyclane Derivatives With Circularly Polarized Light: First Reversible Asymmetric Photoisomerization Between Norbornadienes and Quadricyclanes With Circularly Polarized Light, Proceedings II of 1999 76th National Meeting of Chemical Society of Japan, March 15, 1999, translation, pp. 1-3 (the ARTICLE), describes the INVENTORS' own work.

2 The ARTICLE indicates as authors the INVENTORS and Hiroshi Shitomi and Hideo Onuki (the OTHERS). However, the INVENTORS are the sole inventors of the subject matter disclosed in the ARTICLE, and the OTHERS were merely working under the INVENTORS' direction and control.

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3 We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

Dated: April 28, 2004

By: Hideo Nishino
Hideo Nishino

Dated: April 26, 2004

By: Asao Nakamura
Asao Nakamura

Dated: April 23, 2004

By: Yoshinisa Inoue
Yoshinisa Inoue

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